

## Smith County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/14/2018

Using the most recent IMPLAN data available (2016) adjusted for 2018, 15 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Smith County economy.<sup>1</sup>

These 15 sectors have a total direct output of approximately **\$144.8 million** and support **497 jobs** in Smith County. Running the model for all 15 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Smith County Economy						
Impact Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	Output % of Gross Regional Product
Direct Effect	496.6	20.26%	\$38,281,097	27.77%	\$144,795,098	105.03%
Indirect Effect	175.3	7.15%	\$9,461,588	6.86%	\$18,972,488	13.76%
Induced Effect	119.8	4.89%	\$7,122,087	5.17%	\$13,759,492	9.98%
Total Effect	791.7	32.30%	\$54,864,771	39.80%	\$177,527,078	128.77%

As shown in the above table, agriculture, food, and food processing sectors support **792 jobs**, or **32.30%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$177.5 million**, roughly **128.77% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 15 agriculture, food, and food processing sectors is approximately **\$54.9 million**, or **39.80% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **39.80% of the total economy**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

[http://www.implan.com/index.php?option=com\\_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70](http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **199 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Smith County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	198.9	\$34,901,613
Animal production, except cattle and poultry and eggs	125.8	\$21,876,679
Grain farming	81.1	\$43,578,358
Support activities for agriculture and forestry	47.6	\$1,423,833
Wholesale trade	47.0	\$9,978,881
All other crop farming	36.4	\$4,002,047
Dairy cattle and milk production	17.6	\$8,282,167
Hospitals	16.6	\$2,084,745
Truck transportation	16.4	\$2,085,518
Animal, except poultry, slaughtering	14.9	\$10,193,453

The grain farming sector directly contributes approximately **\$43.6 million** to the Smith County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Grain farming	81.1	\$43,578,358
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	198.9	\$34,901,613
Animal production, except cattle and poultry and eggs	125.8	\$21,876,679
Oilseed farming	14.0	\$20,965,613
Animal, except poultry, slaughtering	14.9	\$10,193,453
Wholesale trade	47.0	\$9,978,881
Dairy cattle and milk production	17.6	\$8,282,167
All other crop farming	36.4	\$4,002,047
Owner-occupied dwellings	0.0	\$3,314,808
Truck transportation	16.4	\$2,085,518

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Smith County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	14.0	\$20,965,612.76
Grain farming	81.1	\$43,578,358.42
Vegetable and melon farming	0.6	\$147,294.97
Fruit farming	1.0	\$95,253.16
Tree nut farming	0.0	\$21.74
Greenhouse, nursery, and floriculture production	2.3	\$354,963.25
All other crop farming	36.4	\$4,002,046.65
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	198.9	\$34,901,612.95
Dairy cattle and milk production	17.6	\$8,282,166.86
Poultry and egg production	0.1	\$52,727.21
Animal production, except cattle and poultry and eggs	125.8	\$21,876,679.48
Commercial hunting and trapping	1.1	\$23,240.40
Animal, except poultry, slaughtering	14.9	\$10,193,453.02
Bread and bakery product, except frozen, manufacturing	2.6	\$298,438.31
Frozen cakes and other pastries manufacturing	0.2	\$23,228.51

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Smith County, the retail sector was omitted.